

of *A. nigrum* had obtuse points
extending out half an inch from
the middle of each of the three
large lobes, but not from the ob-
tuse angles or shoulders of the
lobes, while the leaves of *A. sac-
charinum* have such points, not
only from the middle of each
lobe, but also from the angles.
I find no mention of this differ-
ence in any book. The books say
that *A. saccharinum* has its leaves
pubescent or tomentose below,
Those of *A. nigrum* are not, but
when you look up through them
toward the sun they are beau-
tifully translucent. I have not
found *A. saccharinum* in Kan-
sas except in two or three east-
ern counties. *A. nigrum* not
at all native ^{in Kansas}, but here it is very
common.

Excelsior Springs, Mo.
July 8, 1885.

Sereus Watson, botanist,
It seems odd that I cannot
call you Prot., but I have not
known you to be so called.

A few days ^{ago} I received from
you a pamphlet about new
species of plants found in
the U.S., Mexico and Guatemala,
for which I thank you much.

I was born in Massachusetts
in 1807, graduated from Yale in
1832, came to Kansas in 1856, taught
Natural Sciences in a baby Uni-
versity 1863 to 1866, and about
1869 became ^{by request and election} botanist of the Kan-
sas Natural History Society, - now
Kansas Academy of Science. My
first report was made in 1871.
I used my eyes about home, which

was then and is now in Kansas
^{Kan.} ~~new~~ I am here 25 miles
N.E. of Kansas City, only for the
summer. Several friends sent
me the plants of their respective
neighborhoods, - more than any
other, your brother Dr. L. Wat-
son of Ellis, I had them to dis-
sect. Many were not in Gray nor
Wood, and those I sent to be nam-
ed to you, or Prof. Wood, or Mr.
F. Hall of Ills. At length I had
Porter and Coulter. By 1876
I had about 1080 species. Since
then the number has gone up to
near 1500.

Prof's. Gray and Wood, Mr. Hall,
and three of my Kansas corres-
pondents will help me up more.
I have not heard from your broth-
er in some years. So much by way
of introducing myself,

I want to enter my protest ^a ~~distinct~~
against reckoning what I call ^{distinct} spe-
cies as only varieties of the same.
I think Mr. Gray has sometimes
been mistaken. And, if Mr. Wood
agrees with him, I suppose it has been
only because Mr. Gray has been re-
garded as authority in such mat-
ters more than any one else.

Botan and the 2^d and 3^d editions
of Wood give us *Acer nigrum*, black
maple, as a distinct species. Wood's
later books and Gray's give it as a
variety of *A. saccharinum*. In
Wetontum N.Y. the two are about
equally in use for shade trees.
I had opportunity to observe them
carefully. I never saw interme-
diates, which I think I should
have done, if they had only been
varieties. The bark of *A. nigrum*
was always darker. The leaves

I knew not what to call it. I sent it to Prof. Demoy and he said it was *V. aestivalis*. I saw afterwards in the Massachusetts report that *V. aestivalis* became smooth in the fall. The books now say smoothish. I think Dr. Engelm. was right, and *V. aestivalis* and *V. coccinea* are distinct.

Mr. Gray makes *Physalis* *lan-
ceolata*, *P. Pennsylvanica* and *P.
hirta* all one species. I have seen
and observed closely all of them and
many times. I have not noticed in
P. lanceolata and *P. Pennsylvanica*
any difference in the flowers or
leaves. But *P. lanceolata* grows
only about 1 foot high, soon becomes over,
is pubescent, blossoms early in May
or June, its fruit has its envelope in
the shape of a small furrowed jar or bottle.

July 9. Business and weariness
have interrupted my writing.

If Mr. Gray has made mistake
I think it has been because he had
before him only dried specimens,
when, if he had had abundance of
growing ones, his judgment would
have been different.

Polygonum ^{erectum} has been counted
a variety of *P. aviculare*. I
have seen the former growing up
through a patch of the latter, and
I never saw a specimen that look-
ed doubtful. *P. aviculare* is al-
ways brownish, *P. erectum*, light
green.

In Baton Rouge we had
Amarantus albus and *A. Blit-*
tum. Then *A. Blitum* was miss-
ing many years. Dried speci-
mens can hardly be distin-

guished. There was a slight difference in the bracts, but the leaves could scarcely be distinguished, except by a slight difference in the tint of green. But *A. albus* had an erect stem, branching from the base, cane-like, with a woody structure, rattling off in the fall, and being blown about against fences, and called tumble weed. The other had no woody structure, spread out on the ground like purslane, and, when frost came, was killed and soon rotted on the ground. I see that recent books have *A. blitoides*, which I suppose is a revival of *A. blitum*.

We had long ago *Vitis cordifolia* and *V. riparia* as two species. For many years the latter has been regarded as only a variety of the

former. I have found the latter very common in Kansas, but never saw the former but in three places. Here it is common. The books say *V. cordifolia* ripens its fruit late in the fall. *V. riparia* ripens in August and has very pleasant fruit.

When I came to Kansas I took *V. cinerea* for *V. labrusca*, the under sides of the leaves being so similar. But the fruit was small. I think Mr. Crary made it a variety of *V. aestivalis*, but at length deferred to Dr. Engelman, who thought it a species. It is tomentose ^{below} the whole season. In 1884 I found in Steuben or Yates Co., N.Y. a grape with leaves varying, sinuate or ^{not}, but smooth entirely and bluish ^{beneath}. The books said *V. aestivalis* was rusty-cinaberry below, and

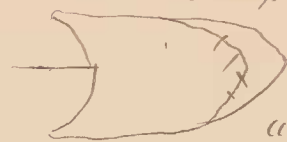
glandular pubescent, The latter I think is not *T. pilosa*, for I have had one from W. Kan. that was pilous all over, and suppose that is the one entitled to the name. I have watched the other two to see if I could find any other difference. I think the smooth one is taller, more branching, blossoms later and is glaucous, but can not say that the difference is constant. I think the one with glandular pubescence might be called *T. intermedia*.

If it gives you any pleasure to read what I have written I shall be glad; for it is all that I can do at present.

Yours truly,

J. H. Cornuth

This is a longitudinal section for shape and size.



The base is always a shallow hemisphere.

P. Pennsylvania grows about two feet, or at least 2 inches high, always erect, branches begin half way up, always smooth, blossoms in July or later and has its envelope always about truncate ^{at base} or a little rounded upwards thus:



I believe they are two species. I have not seen any intermediate.

P. hirta is one that I sent to Mr. Gray. He is certainly wrong in putting it with the other two. It resembles much more *P. viscosa* or *P. pubescens*, but differs from them in that the leaves are retire, approaching rhomboidal in form,

and the blossoms are always all
yellow. Were I at home I would
try to send you specimens.

I find a *Physalis* in Kansas which
agrees well with *P. nyctaginea* Don.
briefly described in Ward's Botanic-
ist and Florist. I have seen no
other description. It is pubes-
cent and the flowers are all yel-
low and very small. The plant
is broader than high and the
leaves about 1 or $1\frac{1}{2}$ inches long.

In 1879 I found near the S.E. cor-
ner of the state a grass agreeing
well with *Tricuspis stricta* in
Ward's Grass book. I find that
name nowhere else. Has it got
another name? I have found your
Bibliographical Index in the K.S.B.
Library of great value in giving me
the changes of names. I need the
coming volumes.

Notwithstanding *Rhus Toxicodendron* and *R. radicans* differ
so little in leaves and fruit, I
can not believe they are the same
species. If they stand erect where
they had nothing to climb on, and al-
ways climbed when they could I
might believe. I can not see why
species may not be distinguished
by other things as well as by the ar-
rangement of their flowers and
the form of their leaves.

I think all the books I have seen
say several species of *Aesculus*
have leaflets 5-7 but *A. glabra*
leaflets 5. It is common here
and in Kansas, and like the others
has leaflets 5-7.

We have in Kansas *Trachosan-
thes Virginica* with pedicels and
calyx smooth, and another or
the same with pedicels and calyx